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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,323	03/06/2001	Shigeru Hayata	85A 3050	3000

7590 01/02/2004

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EXAMINER

PHAM, HOA Q

ART UNIT PAPER NUMBER

2877

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,323	HAYATA ET AL.	
	Examiner	Art Unit	
	Hoa Q. Pham	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 13 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe (5,803,341) in view of Bartschat (4,980,971).

Regarding claims 1 and 13, Abe discloses a bonding apparatus comprising a position detecting imaging device (5), a tool (16) in which the position is measured, a light source (6,9) disposed at a specific location for projecting reference pattern (light beams) toward the tool (16) (see figure 1). Abe does not explicitly teach the step of measuring a position of the position detecting imaging device; however, such a feature is known in the art as taught by Bartschat. Bartschat discloses an operation control device that determines an amount of offset between the position image device and the tool based on a measure value that is obtained when the position of the tool on the reference pattern is measured and a measured value that is obtained when the position of the detection imaging device is measured (column 4 lines 3-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Abe a step of determining the position of the position detecting imaging device as taught by Bartschat if one would like to determine the amount of offset between the tool and the imaging device.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe and Bartschat et al as applied to claim 1 and 13 above, and further in view of Hong et al (6,187,121).

Regarding claim 2, Hong discloses the use of a light source and a reference member (66) in order to calibrate and correct the bonding operation. It would have been obvious to one having ordinary skill in the art to include in Abe and Bartschat et al a light source and reference member for the purpose of determining the position of the imaging device. Thus, an accuracy of the measurement is obtained.

Allowable Subject Matter

4. Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an examiner's statement of reasons for allowance: the cited art does not teach or suggest the last two steps of claim 3, "said step of projecting ...said reference member" and "said step of determining ... said position detection imaging device".

Response to Arguments

6. Applicant's arguments filed 10/16/03 have been fully considered but they are not persuasive.

A. Applicant's remarks, page 4, argues that Abe discloses light sources (6,9) that project light and do not project a pattern at all. Applicant is noted that the phrase "projecting a pattern" in the claims are so broad that can be read on any light pattern (i.e., light beam, straight line, or plurality of straight lines, etc... as shown in figures 3B and 8A-8E of the present invention). Thus, the light "pattern" of Abe is read as a pattern light claimed by the present invention.

B. Applicant's remarks, page 4, argues that the combination suggested by the Examiner is not applicant's invention and claims 1 and 13 are not obvious over Abe in view of Bartschart et al. Applicant is noted that even though Bartschat et al operates entirely differently from the Applicant's invention. However, the claimed language still read on the combination of Abe in view of Bartchart et al. Claims must be examined on the basis of what they say, absent limitations may not be considered to be present.

C. Regarding claim 2, Applicant argues that the reference pattern of Hong et al is not projected on the substrate but merely projected toward the camera via the mirror. Applicant is noted that nowhere in claim 2 recites that the "specified reference point" is projected. Thus, it does not matter where the reference pattern of Hong et al is projected. The claim is read on the teachings of Hong et al.

In view of the foregoing, it is believed that the rejection of claims 1, 2 and 13 under 35 U.S.C 103 is proper.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (703) 308-4808. The examiner can normally be reached on 6:30 AM to 5 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Hoa Q. Pham
Primary Examiner
Art Unit 2877